

**STATEMENT OF BASIS (AI No. 97675)**

for draft Louisiana Pollutant Discharge Elimination System permit No. **LA0119423** to discharge to waters of the State of Louisiana.

**THE APPLICANT IS:** Chemtech Chemical Services, LLC  
Geismar Facility  
Post Office Box 1732  
Geismar, LA 70769

**ISSUING OFFICE:** Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services  
Post Office Box 4313  
Baton Rouge, Louisiana 70821-4313

**PREPARED BY:** Lisa Kemp

**DATE PREPARED:** April 4, 2008

**1. PERMIT STATUS****A. Reason For Permit Action:**

Permit revocation and reissuance of a current Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term. Chemtech is requesting the revocation and reissuance of LPDES permit number LA0119423 for the purpose of adding new wastestreams to Outfall 002.

Chemtech is currently authorized to discharge via two final outfalls to New River in accordance with LPDES permit number LA0119423. Outfall 001 is authorized for the discharge of treated sanitary wastewater. Outfall 002 is authorized for the discharge of utility wastewater from combined shop floor wash, equipment wash, exterior vehicle wash, and internal blending tank rinse water areas. Industrial stormwater runoff is covered by the Stormwater Pollution Prevention Plan requirements contained in Part II of the permit.

Chemtech proposes to discharge Reverse Osmosis (RO) reject water and wastewaters from eye wash stations and safety showers via Outfall 002. The RO reject water will be hard piped to the same PVC pipe as the combined shop floor washdown water and wastewaters from eye wash stations and safety showers. However, the RO reject water and the combined shop floor washdown water and wastewaters from eye wash stations and safety showers will be sampled separately. Chemtech is requesting that Outfall 02A be permitted as the intermittent discharge of wastewater from combined shop floor wash and eye wash stations and safety showers and that Outfall 02B be permitted as the intermittent discharge of RO reject water. Chemtech is also requesting that parameters associated with the internal blending tank rinsewater be removed since internal blending tank rinsewater is not discharged.

**B. LPDES permit -** LPDES permit effective date: October 1, 2004  
LPDES permit expiration date: September 30, 2009  
EPA has not retained enforcement authority.

**C. Date Application Received:** March 14, 2008; additional information received March 25, 2008 via telephone conversation and via emails on March 28, 2008 and April 3, 2008.

Statement of Basis for  
 Chemtech Chemical Services, LLC, Geismar Facility  
 LA0119423, AI No. 97675  
 Page 2

## 2. FACILITY INFORMATION

### A. FACILITY TYPE/ACTIVITY - chemical blending facility

According to the application, Chemtech is an industrial facility specializing in custom blending for specific applications, including, but not limited to, corrosion and scale inhibitors as well as defoamers and polymers. Chemtech combines various raw materials (see Application for raw materials list) with waters in one of five blending tanks, and blends to generate a final product. The product is loaded into tank trucks and shipped to customers. At this point, the tanks are rinsed, and the tank rinse water is loaded into totes which are stored on site until they can be removed by a contractor, Clean Harbors, or the rinse water is reused in the process.

Chemtech pressure washes with city water to remove dirt, dust, and algae from the shop floors and building walls. Small amounts of raw materials or spills could be contained in the sump, however, large spills are contained and the material either reused or sent offsite for disposal.

Employee vehicles and 18 wheelers are washed in the parking lot on site. According to the application, it is estimated that one to two vehicles are washed per week with normal car wash soap in order to remove dirt and road debris; no chassis or interiors are washed.

All of the facility's process water, drinking water, and sanitary water are supplied from Baton Rouge Water Company monitored well water. Chemtech plans to drill an additional well near the Baton Rouge Water well so they will be able to use either supply. The well water is treated for pure blending water. Mixed bed deionizers are rented to remove cations, anions, and solids. These bottles are not regenerated on site. The contractor removes the bottles and re-charges them at another location. Chemtech plans to construct a reverse osmosis treatment system onsite. The reverse osmosis reject water will be sampled at Outfall 02B.

### B. FEE RATE

1. Fee Rating Facility Type: minor
2. Complexity Type: II – BPJ- based on similar facilities
3. Wastewater Type: III
4. SIC code: 2899

### C. LOCATION - 31073 Terminal Court, 1.1 miles west of the intersection of Louisiana Highway 30 and Louisiana Highway 73, in Geismar, Ascension Parish Latitude 30° 13' 46", Longitude 91° 01' 30"

## 3. OUTFALL INFORMATION

### Outfall 001

Discharge Type: treated sanitary wastewater  
 Treatment: mechanical treatment plant  
 Location: at the point of discharge from the sewage treatment facility  
 Latitude 30° 13' 44", Longitude 91° 01' 33"  
 Flow: 240 gpd  
 Discharge Route: local drainage to New River

Statement of Basis for  
Chemtech Chemical Services, LLC, Geismar Facility  
LA0119423, AI No. 97675  
Page 3

Outfall 02A (former Outfall 002\*)

Discharge Type: intermittent discharge of combined shop floor washdown and wastewaters from eye wash stations and safety showers  
Treatment: none  
Location: at the point of discharge from the sump  
Latitude 30° 13' 43", Longitude 91° 01' 34"  
Flow: 1600 gpd shop floor washdown, flow from eye wash stations and safety showers is *de minimus*  
Discharge Route: local drainage to New River

Outfall 02B

Discharge Type: intermittent discharge of reverse osmosis reject water  
Treatment: none  
Location: at the point of discharge from the reverse osmosis system  
Latitude 30° 13' 43", Longitude 91° 01' 34"  
Flow: 4358 gpd  
Discharge Route: local drainage to New River

- \* The RO reject water will be hard piped to the same PVC pipe as the combined shop floor washdown water and wastewaters from eye wash stations and safety showers. However, the RO reject water and the combined shop floor washdown water and wastewaters from eye wash stations and safety showers will be sampled separately.

Outfall 003

Discharge Type: exterior vehicle and equipment washwater\*\*  
Treatment: none  
Location: at the point of discharge from the vehicle and equipment washing area, prior to combining with other waters  
Flow: intermittent, approximately 1 to 2 vehicles washed each week  
Discharge Route: local drainage to New River

- \*\* According to the application, exterior vehicle and equipment washing takes place in a separate area of the facility and does not discharge through Outfall 002 as indicated in the current permit. Therefore, a separate outfall has been established for this discharge.

#### 4. RECEIVING WATERS

STREAM - New River - Headwaters to New River Canal

BASIN AND SEGMENT - Lake Pontchartrain Basin, Segment 040404

DESIGNATED USES -  
a. primary contact recreation  
b. secondary contact recreation  
c. propagation of fish and wildlife

Statement of Basis for  
Chemtech Chemical Services, LLC, Geismar Facility  
LA0119423, AI No. 97675  
Page 4

## 5. TMDL STATUS

Subsegment 040404, New River - Headwaters to New River Canal, is listed on LDEQ's Final 2006 303(d) List as impaired for organic enrichment/low dissolved oxygen(DO) and pathogen indicators (fecal coliform). To date no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL. Until completion of TMDLs for the Lake Pontchartrain Basin, those suspected causes for impairment which are not directly attributed to the chemical blending facility point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard were also eliminated.

Based on an evaluation of the discharges, it was determined that the discharges of treated sanitary wastewater, exterior vehicle and equipment washwater, shop floor washdown, and wastewaters from the eyewash stations and safety showers from this facility have the potential to discharge pollutants which may contribute to organic enrichment/low dissolved oxygen impairments of the receiving waterbody. The organic enrichment/ low DO impairment shall be addressed through the BOD (Outfall 001) and COD (Outfalls 02A and 003) parameters.

The sanitary outfall (Outfall 001) has the potential to discharge pollutants which may contribute to the pathogen indicators impairment of the receiving stream. This will be addressed through the fecal coliform parameter.

## 6. PROPOSED EFFLUENT LIMITS

BASIS - See Rationale Page 8

Changes from the previous permit:

1. Chemtech requested that Outfall 002 be renumbered as Outfall 02A, the intermittent discharge of wastewater from combined shop floor wash and eye wash stations and safety showers, and Outfall 02B, the intermittent discharge of RO reject water. This request has been approved and Outfalls 02A and 02B have been included in the proposed permit. Outfalls 02A and 02B will be sampled separately, but will be hard piped to the same discharge pipe.
2. Chemtech requested that parameters associated with the internal blending tank rinsewater be removed since internal blending tank rinsewater is not discharged. This request has been approved and the discharge of internal blending tank rinsewater and its associated parameters, BOD<sub>5</sub>, TDS, Chlorides, Sulfates, Copper, and Total Phenol have been removed from the permit.
3. Sampling frequency for Outfall 001, treated sanitary wastewater, has been increased from once per six months to once per three months due to compliance history.
4. Outfall 003 has been added for the intermittent discharge of exterior vehicle and equipment washwater since this activity takes place in a different area of the facility and does not discharge through the same outfall as the shop floor washdown.

Statement of Basis for  
 Chemtech Chemical Services, LLC, Geismar Facility  
 LA0119423, AI No. 97675  
 Page 5

5. The commodity list and previous Part II, Paragraphs L, Bulk Chemicals allowed to be stored at the facility and M, Monitoring for parameters with a "report only" requirement... have been removed from the permit since internal blending tank rinsewater is not discharged and because an inspection of the facility (see Section 7.C) did not reveal any problems.
6. Paragraph I has been included in Other Conditions, prohibiting the discharge of internal blending tank rinsewater.

## 7. COMPLIANCE HISTORY/COMMENTS

- A. OEC – There are no open, appealed, or pending OEC enforcement actions as of March 3, 2008.

An unauthorized discharge of wastewater from the sump to groundwater was self-reported by Mr. Steve Parrish of Chemtech on December 12, 2006. According to the report, approximately 1100 gallons of shop floor washwater discharged from a suspected leak in the sump wall. The sump was pumped out and scheduled for repairs. The incident was closed as of January 25, 2007.

- B. DMR Review/Excursions – A review of Discharge Monitoring Reports for the period January, 2005 through December, 2007 revealed the following excursions (noncompliance reports were submitted):

Date	Parameter	Outfall	Reported Value	Permit Limits
Dec., 2007	BOD <sub>5</sub>	001	137.5 mg/L	45 mg/L
	Fecal Coliform	001	>12,850 col/100 ml	400 col/100ml
June, 2007	BOD <sub>5</sub>	001	133 mg/L	45 mg/L
June, 2006	BOD <sub>5</sub>	001	127 mg/L	45 mg/L
	TSS	001	77 mg/L	45 mg/L
Dec., 2005	BOD <sub>5</sub>	001	110 mg/L	45 mg/L
	TSS	001	2580 mg/L	45 mg/L
	Fecal Coliform	001	TNTC	400 col/100ml
June, 2005	BOD <sub>5</sub>	001	212 mg/L	45 mg/L
	Fecal Coliform	001	8600 col/100ml	400 col/100ml
Sept., 2007	BOD <sub>5</sub>	002	not analyzed	45 mg/L
June, 2007	BOD <sub>5</sub>	002	58 mg/L	45 mg/L
	COD	002	384 mg/L (monthly avg.)	200 mg/L
	COD	002	384 mg/L (daily max)	300 mg/L
Dec., 2006	BOD <sub>5</sub>	002	not analyzed	45 mg/L
	COD	002	1050 mg/L (monthly avg.)	200 mg/L
	COD	002	1050 mg/L (daily max)	300 mg/L
Sept., 2006	no sample taken during this quarter			
June, 2006	BOD <sub>5</sub>	002	not analyzed	45 mg/L

Note: The permittee was submitting DMRs based on LAG480285 (the previous permit) through March, 2006. BOD<sub>5</sub> was not included among the parameters for LAG480285, Outfall 002.

- C. Inspections – A compliance inspection was performed at the facility on July, 18, 2005. The inspection report stated:

Statement of Basis for  
 Chemtech Chemical Services, LLC, Geismar Facility  
 LA0119423, AI No. 97675  
 Page 6

1. A look around the facility revealed no apparent violations. It is clean and well maintained.
2. The receiving waters looked good. There was no smell, no visible sheen, and no solids present.
3. A DMR review for the past year revealed no reported exceedances. (Note – there were two exceedances reported in June, 2005.)

## 8. EXISTING EFFLUENT LIMITS

### Outfall 001 – treated sanitary wastewater

Effluent Parameter	Monthly Average	Weekly Average	Measurement Frequency
Flow - MGD	Report	Report	1/6 months
BOD <sub>5</sub>	---	45 mg/L	1/6 months
TSS	---	45 mg/L	1/6 months
Fecal Coliform	---	400 col/100 ml	1/6 months
pH Minimum/Maximum (Standard Units)	6.0 Minimum	9.0 Maximum	1/6 months

### Outfall 002 – utility wastewater from the combined shop floor wash, equipment wash, exterior vehicle wash, and internal blending tank rinse areas

Effluent Parameter	Monthly Average	Daily Maximum	Measurement Frequency
Flow - GPD	Report	Report	1/3 months
BOD <sub>5</sub>	---	45 mg/L	1/3 months
TSS	---	45 mg/L	1/3 months
COD	200 mg/L	300 mg/L	1/3 months
Oil and Grease	---	15 mg/L	1/3 months
TDS*	---	Report	1/3 months
Chlorides*	---	Report	1/3 months
Sulfates*	---	Report	1/3 months
Copper*	---	Report	1/3 months
Total Phenol*	---	Report	1/3 months

Statement of Basis for  
Chemtech Chemical Services, LLC, Geismar Facility  
LA0119423, AI No. 97675  
Page 7

pH Minimum/Maximum (Standard Units)	6.0 Minimum	9.0 Maximum	1/3 months
Soaps/Detergents	---	Report	1/3 months
Visible Sheen	---	No Presence	1/day

\* required for two monitoring periods after commodities containing any of these parameters have been rinsed from the blending tanks.

## 9. ENDANGERED SPECIES

The receiving waterbody, Subsegment 040404 of the Lake Pontchartrain Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 24, 2007 from Boggs (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

## 10. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

## 11. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application.

## 12. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

Statement of Basis for  
Chemtech Chemical Services, LLC, Geismar Facility  
LA0119423, AI No. 97675  
Page 8

### Rationale for Chemtech Chemical Services, LLC

1. **Outfall 001** - treated sanitary wastewater (estimated flow is 240 gpd)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg: Weekly Average (mg/l)	<u>Reference</u>
Flow	Report : Report	previous permit; LAG480000
BOD <sub>5</sub>	---: 45	previous permit; LAG480000
TSS	---: 45	previous permit; LAG480000
Fecal Coliform colonies/100 ml	---: 400	previous permit; LAG480000
pH – Allowable Range (standard units)	6.0 – 9.0	previous permit; LAG480000

**Treatment:** mechanical treatment plant with chlorination

**Monitoring Frequency:** 1/3 months; monitoring frequency has been increased based on numerous excursions from effluent limitations – see Compliance History, Page 5

**Limits Justification:** limits are based on the previous permit and the General Permit for Light Commercial Facilities (issued August 1, 2001) LAG480000, Schedule A

2. **Outfall 02A** – intermittent discharge of combined shop floor washdown and wastewaters from the eye wash stations and safety showers, (estimated flow is 1600 gpd shop floor washdown; flow from eye wash stations and safety showers is *de minimus*)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg: Daily Max (mg/l)	<u>Reference</u>
Flow (GPD)	Report: Report	previous permit; LAG480000
TSS	---: 45	previous permit; LAG480000
COD	200: 300	previous permit; LAG480000
Oil & Grease	---: 15	previous permit; LAG480000
pH – Allowable Range	6.0 - 9.0 su	previous permit; LAG480000
Soaps and/or Detergents (*1)	Report : N/A	previous permit; LAG480000
Visible Sheen	---: No Presence	previous permit; LAG480000

**Treatment:** sump

**Monitoring Frequency:** 1/day for visible sheen; 1/3 months for all other parameters



Statement of Basis for  
 Chemtech Chemical Services, LLC, Geismar Facility  
 LA0119423, AI No. 97675  
 Page 9

**Limits Justification:** limits are based on the previous permit and the General Permit for Light Commercial Facilities (issued August 1, 2001) LAG480000, Schedule B

Because the facility does not discharge internal blending tank rinsewater and because the receiving stream is not listed on LDEQ's Final 2006 303(d) List as impaired for Chlorides, Sulfates, Copper, TDS, or Total Phenol, the BOD5, TDS, Chlorides, Sulfates, Copper, and Total Phenol parameters have been removed from this outfall.

(\*1) Each type of Soap and/or Detergent shall be listed separately on the Discharge Monitoring Report (DMR) along with the total amount of each used during the monitoring period. Additionally, a Material Safety Data Sheet for each material used shall be submitted with the DMRs upon initial use of a new product.

3. **Outfall 02B** – intermittent discharge of reverse osmosis reject water (estimated flow is 4358 gpd)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg; Daily Max (mg/l)	<u>Reference</u>
Flow (GPD)	Report : Report	LAG380000
TSS	30 : 45	LAG380000
Total Recoverable Iron	---: Report	LAG380000
pH – Allowable Range	6.0 - 9.0 su	LAG380000

**Treatment:** none

**Monitoring Frequency:** 1/month for flow, TSS and pH; 1/ 3months for Total Recoverable Iron

**Limits Justification:** LAG380000, Potable Water Treatment Plant General Permit, Schedule B

A water quality screen was performed to calculate a water quality based limit for chlorides. However, the results of the screen indicate that a water quality based limit is not needed for chlorides. Therefore, a chlorides limit will not be included in the permit.

Statement of Basis for  
 Chemtech Chemical Services, LLC, Geismar Facility  
 LA0119423, AI No. 97675  
 Page 10

4. **Outfall 003** – intermittent discharge of exterior vehicle and equipment washwater (approximately 1-2 vehicles washed each week)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg:Daily Max (mg/l)	<u>Reference</u>
Flow (GPD)	Report: Report	LAG480000
TSS	---: 45	LAG480000
COD	200: 300	LAG480000
Oil & Grease	---: 15	LAG480000
pH – Allowable Range	6.0 - 9.0 su	LAG480000
Soaps and/or Detergents(*1)	Report:N/A	LAG480000
Visible Sheen	---: No Presence	LAG480000

**Treatment:** none

**Monitoring Frequency:** 1/day for visible sheen; 1/3months for all other parameters

**Limits Justification:** limits are based on the General Permit for Light Commercial Facilities (issued August 1, 2001) LAG480000, Schedule B

Because the facility does not wash the interiors of transportation vehicles, 40 CFR Part 442.11: Effluent Limitations Guidelines for the Transportation Equipment Cleaning Point Source Category, Tank Trucks and Intermodal Tank Containers Transporting Chemical and Petroleum Cargos do not apply.

- (\*1) Each type of Soap and/or Detergent shall be listed separately on the Discharge Monitoring Report (DMR) along with the total amount of each used during the monitoring period. Additionally, a Material Safety Data Sheet for each material used shall be submitted with the DMRs upon initial use of a new product.

su Standard Units

#### NOTE

For outfalls containing concentration limits, the usage of concentration limits is based on BPJ for similar outfalls since the flow is variable and estimated.

#### **STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENT**

A SWP3 is included in the permit because in accordance with LAC 33:IX.2511.A.1, storm water discharges shall not be required to obtain an LPDES permit "... except... discharges associated with industrial activity." In accordance with LAC 33:IX.2511.B.14.a-k, facilities classified as SIC code 2899 are considered to have storm water discharges associated with industrial activity.

Statement of Basis for

Chemtech Chemical Services, LLC, Geismar Facility

LA0119423, AI No. 97675

Page 11

The SWP3 shall be prepared, implemented, and maintained within (6) months of the effective date of the final permit. The plan should identify potential sources of storm water pollution and ensure the implementation of practices to prevent and reduce pollutants in the storm water discharges associated with industrial activity at the facility (see Narrative Requirements for the AI).